To: Phil North/R10/USEPA/US@EPA[]

From: Doug Limpinsel

**Sent:** Wed 3/31/2010 4:07:40 PM

Subject: Re: Update - Re: Nushagak and Kvichak Smolts

doug limpinsel.vcf

North.Phil@epamail.epa.gov

north.phil@epa.gov

Also, NOAA marine mammals specialists (pinniped and belugas, bristol bay and pribs,) are providing references with numbers we can use in the effort...

Doug Limpinsel wrote: Phil,

Appreciate the cc...

Short Story, I spoke to our colleagues at the AFSC in Seattle. We will receive Sarah's write up, spread sheet, calculations and cites.

Whether we will be able to reference them as the source is to be determined.

The draft is in review in Auke Bay.

Primary talking points...

"Smolt survival to equate to adult return/escape should be closer 2.8-3.0%"

"Bristol Bay salmon comprise 12% of the Bering Sea salmon stock/population'

Losly stated, about half of the salmon caught and tagged in the Bering Sea were later Id'ed in Bristol Bay watersheds.

North.Phil@epamail.epa.gov wrote:

Hi Guy,

Carol Ann Woody gave me your contact information. I am an ecologist working on the Pebble Mine for the EPA aquatic resources program (often misnamed the wetlands program). I have been sketching out the issues we need to address in the expected upcoming review. I am trying to get a sense of the range of potential loss of smolt emigration given the mine foot print as well as possible chronic small scale spills and catastrophic failure of a large tailings dam. I am looking down stream at marine ecosystems in Bristol Bay, Bering Sea and the North Pacific.

My initial estimates of smolt numbers were based on an ADFG management rule-of-thumb of 10% egg to smolt survival. A recent presentation by Carol Ann Woody suggested that this produces number that are way too high. She suggested I check with you. If you can spare a moment can you give me a little direction in how to estimate reasonable smolt numbers. Is that possible? I am not looking to make a firm prediction. I want to get a ballpark range so that I can get a sense of the downstream effects from loss of forage fish in marine ecosystems. We are trying to figure out if that might be an issue.

Phil

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"To protect your rivers, protect your mountains."
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